

**CD109 Antibody**

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**For Research Use Only. Not for Use in Diagnostic Procedures.**

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IP	H	Endogenous	190	Rabbit	#Q6YHK3	135228

**Product Usage Information****Application**

Western Blotting  
Immunoprecipitation

**Dilution**

1:1000  
1:50

**Storage**

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

**Specificity/Sensitivity**

CD109 Antibody recognizes endogenous levels of total CD109 protein.

**Source / Purification**

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Gly653 of human CD109 protein. Antibodies are purified by protein A and peptide affinity chromatography.

**Background**

CD109 is a glycosylphosphatidylinositol (GPI)-linked glycoprotein that belongs to the alpha2-macroglobulin family of thioester containing proteins (1). CD109 is associated with TGF-beta receptor I (TbRI) and inhibits TGF-beta signaling (2,3). Cleavage of CD109 at its Furin cleavage site results in the release of its large amino-terminal domain, which then binds to the TGF-beta receptor I to inhibit TGF-beta signaling (4-7). CD109 is expressed on a subset of CD34+ bone marrow cells and mesenchymal stem cells, activated platelets, activated T cells, endothelial cells, and a wide variety of tumors (8-10). Elevated CD109 expression has been considered a diagnostic/prognostic marker for several types of cancers (11-14).

**Background References**

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4. Hagiwara, S. et al. (2010) *Oncogene* 29, 2181-91.
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6. Zhou, S. et al. (2017) *Oncotarget* 8, 95632-47.
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11. Emori, M. et al. (2015) *J Surg Oncol* 111, 975-9.
12. Jia, W. et al. (2016) *Oncotarget* 7, 55328-42.
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14. Chuang, C.H. et al. (2017) *Nat Med* 23, 291-300.

**Species Reactivity**

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

**Western Blot Buffer**

**IMPORTANT:** For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

**Applications Key**

**W:** Western Blotting **IP:** Immunoprecipitation

**Cross-Reactivity Key**

**H:** Human

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